

REMARKS

The present Amendment is in response to the Office Action mailed August 24, 2005, in the above-identified application. Enclosed herewith is a Petition requesting a three-month extension of time for resetting the deadline for responding to the Office Action from November 25, 2005, to and including February 25, 2006.

In the present Amendment, Applicants have canceled claims 1-4, added new claims 9-23 and amended claims 5-8 to depend from new claim 9. New claims 9-22 are fully supported by the originally filed specification and add no new matter. New claim 23 combines independent claim 1 with claim 7. Applicants note that the Examiner indicated that claim 7 contained allowable matter, and would be allowable if combined with claim 1.

As an initial matter, Applicants acknowledge and appreciate the Examiner's indication that claim 7 contains allowable matter. As discussed herein, Applicants have introduced new claim 23, which combines the limitations of claim 7 and claim 1.

In the Office Action, the Examiner rejected claims 5 and 6 under 35 U.S.C. §112, first paragraph. In response, claims 5 and 6 have been amended to change the limitation "a semiconductor chip package having a dielectric element attached to a chip" to --a semiconductor chip package--. In view of the above-noted amendment of claims 5 and 6, Applicants respectfully assert that the claims now satisfy the requirements of 35 U.S.C. §112, first paragraph.

The Examiner rejected claims 1, 3-6 and 8 under 35 U.S.C. §102(a) and 102(b) as being anticipated by JP 59-143352 to Okamoto et al. Referring to FIG. 3 thereof, Okamoto discloses an assembly including a polyimide flexible film 1 having a copper lead 2. A multi-layer bump 8 made of first gold

layer 8b, copper layer 8a and second gold layer 8b is provided on lead 2. The assembly also includes a semiconductor element 4 having a contact pad 5. As shown in FIG. 5, the multi-layer conductive bump 8 is aligned with the contact pad 5 for interconnecting the polyimide flexible film 1 and the semiconductor element 4.

Referring to FIG. 1A of the present application, Applicants respectfully assert that the scope of the claims in the present application is dramatically different than what is taught or suggested by Okamoto. As shown in FIG. 1A, a first fusible material 16 is provided on the contacts of a chip 10 and a second fusible material 28 is provided at the second end 26 of lead 22. Immediately before the first fusible material 16 engages the second fusible material 28, one of the fusible materials is heated for transforming the one of the fusible materials into a liquid state while the other fusible material remains in a solid state. As a result, referring to FIG. 1B, the semiconductor chip 10 and substrate 20 may be temporarily electrically interconnected with one another during testing. If the test is satisfactory, both the first fusible material 16 and the second fusible material 28 can be transformed into a liquid state for permanently interconnecting the chip 10 and the substrate 20, as shown in FIGS. 1C and 1D.

Applicants respectfully assert that new claim 9 is unanticipated by Okamoto because the cited reference neither discloses nor suggests a microelectronic assembly including "a first fusible material engaging the at least one contact of said first microelectronic element; a second fusible material engaging the at least one lead, . . . said first and second microelectronic elements being juxtaposed with one another so that said first and second fusible materials are in substantial alignment with one another, wherein one of said first and second fusible materials is in a liquid state and one of said first and

second fusible materials is in a solid state." Claims 5-8 and 10-15 are unanticipated, *inter alia*, by virtue of their dependence from claim 9, which is unanticipated for the reasons set forth above.

New claim 16 is unanticipated by Okamoto because the cited reference neither discloses nor suggests a microelectronic assembly including "a first conductive mass disposed on said at least one contact of said first microelectronic element, said first conductive mass having a first melting temperature; and a second conductive mass disposed on said at least one lead, said second conductive mass having a second melting temperature that is different than said first melting temperature, wherein said first and second conductive masses are spaced from one another." Claims 17-22 are unanticipated, *inter alia*, by virtue of their dependence from claim 16, which is unanticipated for the reasons set forth above.

New claim 23 is unanticipated because the Examiner indicated that the limitations found therein are allowable. Specifically, the Examiner indicated that claim 7 contained allowable matter, and would be allowable if rewritten in independent form to include all of the limitations of the base claim (i.e. claim 1) and any intervening claims. In response, Applicants have introduced new claim 23, which combines the limitations of claim 1 with claim 7.

The Examiner also rejected claims 1-2, 5-6 and 8 under 35 U.S.C. §102(a) and 102(b) as being anticipated by U.S. Patent No. 5,536,973 to Yamaji. Referring to FIG. 2 thereof, Yamaji discloses a semiconductor device including a first microelectronic element 11 juxtaposed with a second microelectronic element 12. The first microelectronic element 11 includes contacts 11a and the second microelectronic element 12 includes conductive pads 12a. The device includes crushed bonding wires 13 that are attached to contacts 11a and

electrically interconnected with conductive pads 12a by solder 12b.

In response to the rejection under Yamaji, Applicant respectfully asserts that new claim 9 is unanticipated because the cited reference neither discloses nor suggests a microelectronic assembly including "a first fusible material engaging the at least one contact of said first microelectronic element; a second fusible material engaging the at least one lead, wherein one of said first a second fusible materials has a higher melting temperature and one of said first and second fusible materials has a lower melting temperature; said first and second microelectronic elements being juxtaposed with one another so that said first and second fusible materials are in substantial alignment with one another, wherein one of said first and second fusible materials is in a liquid state and one of said first and second fusible materials is in a solid state." Claims 5-8 and 10-15 are unanticipated, *inter alia*, by virtue of their dependence from claim 9.

New claim 16 is unanticipated by Yamaji because the cited reference neither discloses nor suggests a microelectronic assembly including "a first conductive mass disposed on said at least one contact of said first microelectronic element, said first conductive mass having a first melting temperature; and a second conductive mass disposed on said at least one lead, said second conductive mass having a second melting temperature that is different than said first melting temperature, wherein said first and second conductive masses are spaced from one another." New claims 17-22 are unanticipated, *inter alia*, by virtue of their dependence from claim 16. New claim 23 is unanticipated for the reasons set forth above.

The Examiner rejected claim 2 under 35 U.S.C. §103(a) as being unpatentable over JP 59-143352, however, the claim has been canceled, thereby rendering the rejection moot.

As it is believed that all of the rejections set forth in the Office Action have been fully met, favorable reconsideration and allowance are earnestly solicited.

If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that he telephone Applicants' attorney at (908) 654-5000 in order to overcome any additional objections which he might have.

If there are any additional charges in connection with this requested Amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

Dated: February 24, 2006

Respectfully submitted,

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